diminished in size. There seemed to be no rule. Schuffner's granules were found in one infected red cell, which contained a parasite considerably larger than any others encountered. Although Stephens could detect no pigment in this particular parasite, it was otherwise indistinguishable from a simple tertian parasite.

Naso-oral Leishmaniasis (Espundia) Originating in the Anglo-Egyptian Sudan.—J. B. CHRISTOPHERSON (*Annals Trop. Med. and Parasitol.*, 1914, viii, 485) reports two interesting cases of leishmaniasis originating in the Anglo-Egyptian Sudan. Naso-oral leishmaniasis, known as espundia, has hitherto been described only in South America (Peru and Brazil). The case reported by Christopherson corresponds clinically with the descriptions of espundia. In the ulcers typical Leishman-Donovan bodies were found, though they were very few in number. Media on which the kala-azar organisms grew readily were inoculated with scrapings from the ulcers, but no growth occurred. The case of cutaneous leishmaniasis (Oriental sore) reported also originated in the Sudan, the first recorded from this district, in which kala-azar is of frequent occurrence.

SURGERY

UNDER THE CHARGE OF

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Observations on Myeloid Sarcoma with an Analysis of Fifty cases.—STEWART (*Lancet*, Nov. 28, 1914, 1236) says that there is no subject in the whole range of surgical practice where the coöperation of surgeon and pathologist is more necessary than in the case of myeloid sarcoma. *Not only the extent of the operation but the ultimate prognosis depends* finally on the histological diagnosis, although in most instances it is possible to say, from the naked-eye characters alone, whether or not one is dealing with a case of this kind. On the other hand, a perusal of the literature shows that errors in diagnosis may be made even where the growth is submitted to microscopic examination, and this is generally due to mistaking a malignant giant-celled for a myeloid sarcoma. Although it is the usual teaching nowadays that these growths (myeloids) are of very low malignancy, there still seems to be an unwillingness on the part of many surgeons to treat them by local *excision, and this is undoubtedly due,* as already indicated, to the fact that in the past, cases of so-called myeloid sarcoma have been reported

in which death with visceral dissemination occurred at a longer or shorter period after operation. These 50 cases have been investigated from both the clinical and pathological stand-point, but special attention has been paid on the one hand to the question of prognosis, and on the other to the minute anatomy of the growths. Stewart divides giant-celled sarcomata into: (1) the myeloid sarcomata, myelomata of some authors; and (2) the malignant giant-celled sarcomata. Myeloid sarcoma is locally malignant only and does not undergo dissemination. It is to be clearly distinguished, both clinically and pathologically, from malignant giant-cell sarcoma, in which death with visceral dissemination is the rule, even after the most radical operative treatment. The histological diagnosis is based on the morphological characters of the giant cells, especially as regards their nuclei. In myeloid sarcoma the latter are numerous, uniform, small, and without mitoses; in malignant giant-cell sarcoma they are few, sometimes single, irregular, and often very large, while mitotic figures are frequent. After investigating this comparatively large series of cases, and from a study of the literature, Stewart feels bound to advance a strong plea for the conservative treatment of myeloid sarcoma. Especially would he advocate thorough curettage as the operation of choice in the first instance in suitable cases; failing this, a local resection of the growth. Amputation should be the last resort, and only after the failure of less radical measures. An accurate histological investigation of the tumor is in all cases essential.

Acute Emphysematous Gangrene.—Swan, Jones and McNee (*Lancet*, Nov. 14, 1914, 1160) say that since the commencement of the war some 2000 cases have been admitted to the Royal Herbert Hospital, but this disease has only appeared in the last fortnight. In the three cases reported were found spore-bearing organisms identical morphologically with the bacillus of malignant edema. The diagnosis of "malignant edema" in these cases, however, rests as much on the clinical appearances as on the bacteriological findings. The following diagnostic points are emphasized: (1) The blackish-brown, almost charred appearance of the wound; (2) the abundance of a thin, brown-colored serous discharge, in which microscopically much granular debris but comparatively few pus cells could be recognized. Great numbers of other pathogenic organisms were present in all three cases in addition to the spore-bearing bacilli; (3) the curious heavy, penetrating odor from the wound; (4) the skin surrounding the wound became of a slate-blue color. Blisters containing brownish fluid were present over the area of dark skin in the case in which the gangrene had spread; (5) fine emphysematous crepitations could be made out in the tissues surrounding the wound; (6) marked toxemia accompanied the disease in the two fatal cases, but it is noteworthy that in both of these consciousness was unimpaired until a minute or two before death. With the occurrence of the disease active measures must be adopted as soon as the bacteriological evidence is forthcoming, first to isolate the patient from other surgical cases and then to attack the wound. In the first cases the condition was hopeless from the onset of the spreading gangrene, and in the second amputation well above the wound was performed at once owing to the extensive injury to the knee-joint. In the

third case the patient's general condition was such that it was decided to attempt in the first place to save the limb, especially as any operation would have to be performed through infected tissue. When it can be carried out, free and extensive incisions into the area with thorough swabbing with peroxide of hydrogen and permanganate solution should be used, and the writers are inclined to recommend this in preference to carbolic acid, because the organisms are anaërobic. Dressings soaked with hydrogen peroxide were applied very frequently. At the same time large quantities of saline should be given by the rectum and subcutaneously.

The Treatment of Osteomyelitis: Observations on Ninety-seven Cases, with the End-results.—Simmons (*Surg., Gynec., and Obst.*, 1915, xx, 129) says that in children with pain in a limb and evidence of toxemia, always consider osteomyelitis. Operate early even if the symptoms are rather vague. If the diagnosis is incorrect practically no harm is done while if correct a great deal of suffering may be avoided. In acute cases, open to the medulla and pack the wound. The prognosis is good. The treatment and prognosis varies of necessity somewhat in these early cases but in general the earlier the operation the better the prognosis. In cases where bone destruction has taken place, seen less than three months after the onset of the disease, perform subperiosteal resection when possible. The prognosis is good. In chronic cases of bone abscess of less than one year's duration, drain and pack. The prognosis is good. In chronic cases with bone destruction of less than one year's duration, remove the sequestrum and pack. The prognosis is good. In old chronic cases, either with bone destruction or of the bone abscess type, remove necrotic areas and drain. Try to obliterate the cavity with flaps of living tissue. If this cannot be done either use bone wax, pack or sterilize the cavity, allow it to fill with blood-clot, and close without drainage. The prognosis, if the cavity can be obliterated, is fair, otherwise poor. The treatment when such bones as the pelvis are involved is unsatisfactory and the prognosis problematical. When in old chronic cases the shaft of a long bone is badly diseased the possibility of resection of the entire shaft with bone transplantation is resorted to.

Experiences with Nail Extension.—Grabowski (*Deutch. Ztschr. f. Chir.*, 1915, cxxxii, 529) reviews the experiences of various surgeons wtih this method of extension and reports 19 fractures of the lower extremity treated by nail extension in Garrè's clinic at Bonn. They were for the most part simple fractures, a number having united with deformity. The following technique was observed: After thorough disinfection and painting of the skin with iodin, a nickel-plated nail or gimlet was driven into the bone. The free ends were wrapped around with iodoform gauze, covered by a sterile metal cap and the whole protected by a gauze bandage. For extension from the calcaneus a single perforating nail is employed and for the femoral condyles a nail is used on each side, because it diminishes the danger of tearing away the bone at the epiphyseal line. In fractures the nail is passed near the junction of the epiphysis and diaphysis and in fractures of the leg through the calcaneus, in order to avoid danger to the joints. Control during the treatment is maintained by the Roentgen-ray and measurements.

In most cases local anesthesia was employed, light general anesthesia being employed only in especially painful cases. The experience at the Bonn clinic is favorable to nail extension and shows it to be very effective. Its superiority over other methods of extension, especially in complicated and old fractures with deformity, is beyond doubt. It cannot be considered, however, as the method of choice because of the dangers associated with it. Grabowski considers it as an open operation with its possibilities of danger. One case resulted in a severe infection extending from the nail. In the Bonn clinic nail extension is reserved for especially appropriate cases, those in which the Bardenheuer method fails or its employment seems without hope of success. Nail extension has given brilliant results in advanced consolidation with considerable shortening and bad position of the fragments. It is valuable in complicated fractures with marked overlapping of the fragments and extensive injury of the soft tissues. The extension can be applied immediately with proper treatment of the wound, with far better prospects than formerly of good functional results. A third indication for nail extension is to be found in very severe fractures of the leg near the ankle-joint, in which there is not sufficient room for the application of the adhesive plaster extension. The indications for this method of extension, however, were very limited in the Bonn clinic. The technique should be observed closely and infection guarded against carefully. Only under these circumstances with a proper choice of cases and in experienced hands, should the method be used.

The Gross Anatomy of the Human Prostate and Contiguous Structures.—Lowsley (*Surg., Gynec., and Obst.*, 1915, xx, 183) says that this report is based upon a study of two hundred and twenty-four prostate glands from patients varying in age from one month to seventy-nine years, most of which were obtained from routine autopsies conducted by the pathological department of Bellevue Hospital. These specimens have been studied in gross, in sections, and microscopically, both in serial sections and in sections taken at random. It has seemed wise to consider in this communication only the gross characteristics of the structures at the neck of the bladder, as relationships at this complicated area are of the utmost importance to the genito-urinary surgeon. The following interesting facts are deduced from the study: The width of the prostate in every instance is greater than the height, always less than the length. The prostate develops very slowly until puberty, at which time it increases enormously in size, assuming proportions which are twice those previous to this period. It reaches a maximum size during the third decade. One out of every four specimens observed shows an obstruction of greater or less extent at the orifice of the bladder. Asymmetry of the trigonum vesicæ frequently occurs (26.3 per cent. of Simmons' cases). The upper portion of the posterior urethra continually lengthens from birth until death. The seminal vesicles and the lower end of the vasa deferentia are enveloped in a triple-layered fascia, which is of great importance surgically. Enlargement of the seminal vesicles occurs in one-third of the cases over twenty years of age, the right being affected three times as often as the left. The ejaculatory ducts rarely, if ever, open into the utriculus prostaticus.